

## National Nuclear Security Administration Advisory Committee

### Member Biographies

**Admiral Henry G. Chiles, Jr.** (USN, Retired) serves as Chairman of the 15-member NNSA Advisory Committee. Admiral Chiles' long and distinguished career in the United States Navy spans service as Commander, USS Gurnard (1976-1980), to Commander in Chief, U.S. Strategic Command. Chiles has served as Special Assistant to the Director of the Naval Nuclear Propulsion Program, U.S. Department of Energy, where he conducted fleet liaison and directed the Prospective Commanding Officer's Course (1980-1983); Commander of the Naval Training Center in San Diego (1985-1986) and then Director, Strategic Submarine Division and Deputy Assistant Chief of Naval Operations (Undersea Warfare); Commander, Submarine Force, U.S. Atlantic Fleet; and Commander, Submarines Allied Command Atlantic (1990). In September 1993, Admiral Chiles became Deputy Commander, United States Strategic Command. He relieved as Commander in Chief, United States Strategic Command on February 14, 1994 with responsibility for all U.S. Air Force and Navy Strategic nuclear forces supporting the national security objective of deterrence. He retired in 1996, serves on a variety of boards, and is the Distinguished Professor of Leadership at the U.S. Naval Academy. Admiral Chiles graduated from the United States Naval Academy and holds a M.A. from Oxford University.

**Dr. Victor E. Alessi** is a highly regarded expert in national security, arms control and nuclear nonproliferation. Since October 1999, Dr. Alessi has served as President and CEO of the United States Industry Coalition. Dr. Alessi has been the United States representative on the Governing Board of the International Science and Technology Center in Moscow since its founding in 1992. For three years prior to his USIC appointment, Dr. Alessi was President of DynMeridian, a subsidiary of DynCorp, a company specializing in arms control, nonproliferation, and international security affairs. He spent one year as Executive Assistant to the Director at the U.S. Arms Control and Disarmament Agency. Earlier, Dr. Alessi served as Director of the Office of Arms Control and Nonproliferation in the Department of Energy where he oversaw all arms control and nonproliferation activities. He supervised an R&D program involving hundreds of scientists and engineers at national laboratories. Before joining DoE in 1987, he was the Chief of the Strategic Affairs Division of ACDA. Dr. Alessi is a graduate of Fordham University, where he also earned a licentiate in Philosophy (Ph.L.). He received M.S. and Ph.D. degrees in nuclear physics from Georgetown University.

**Dr. Steven Chu** is the Theodore and Frances Geballe Professor of Physics and Applied Physics at Stanford University. Dr. Chu's research on the interplay of light and atoms earned him and fellow researchers the 1997 Nobel Prize in physics. Prior to joining the Stanford faculty in 1987, Dr. Chu was Head of Quantum Electronic Department at AT&T Bell Laboratories (1983-87). He is a member of many professional societies, including the American Physical Society, the National Academy of Sciences, and the American Academy of Arts and Sciences. In addition to the Nobel Prize, Dr. Chu has received many professional awards and fellowships, among them a Guggenheim fellowship (1996), the Humboldt Senior Scientist Award (1995), and was co-winner of the King Faisal International Prize for Science (1993). Dr. Chu earned his A.B. and B.S. from the University of Rochester and his Ph.D. from the University of California at Berkeley.

**Charles B. Curtis** is the President and Chief Operating Officer of the Nuclear Threat Initiative at the Center for Strategic and International Studies. Previously, Mr. Curtis served as the Executive Vice President and Chief Operating Officer of the United Nations Foundation. Before joining UNF, Mr. Curtis was a partner in Hogan & Hartson, a Washington based law firm with fifteen domestic and international offices. Mr. Curtis served as Under Secretary and, later, Deputy Secretary of Energy from February 1994 to May 1997. He was the chief operating officer of the Department and, among other duties, had direct programmatic responsibility for all Department science, technology and national security programs. Mr. Curtis was the Department's designated member of the Nuclear Weapons Council throughout his tenure. Mr. Curtis has B.S. and B.A. degrees from the University of Massachusetts - Amherst and a J.D. (with honors) from the Boston University Law School where he served as an editor of the Law Review.

**Dr. Sidney Drell** is a physicist and arms control specialist. Since 1960 he has been a leader in providing essential technical advice to the Government on national security issues. A faculty member of Stanford University since 1956, he is currently Professor of Theoretical Physics (Emeritus) at the Stanford Linear Accelerator Center, (of which he was also Deputy Director until retiring in 1998), and a Senior Fellow at the Hoover Institution at Stanford. As a government advisor, Dr. Drell has served as a member of the President's Foreign Intelligence Advisory Board since 1993 and is active as a member of the group of scientific advisors called JASON. He belongs to the following professional and honorary societies: Fellow and former-President of the American Physical Society, National Academy of Sciences, American Academy of Arts and Sciences, American Philosophical Society, the Academia Europea, and the Council on Foreign Relations. His most recent awards in the year 2000 include the Enrico Fermi Award, the government's oldest award for science and technology, presented by the President and the Secretary of Energy; the National Intelligence Distinguished Service Medal, the highest award bestowed by the U.S. Intelligence Community, presented by the Director of Central Intelligence; and designation by the National Reconnaissance Office as one of 10 scientists who are "Founders of national reconnaissance as a space discipline."

**Dr. John S. Foster, Jr.**, currently serves as Chairman of the Panel to Assess the Reliability, Safety, and Security of the United States Nuclear Stockpile. He is also Partner and Chairman of the Board of Technology Strategies and Alliances, and Chairman of Pilkington Aerospace. Previously, Dr. Foster was Director of the Office of Defense Research and Engineering (DDR&E) for the Department of Defense (1965-1973), served on the President's Foreign Intelligence Advisory Board (1973-1990), and was Chairman of the Defense Science Board (1990-1993), on which he still serves. Prior to his appointment to DDR&E, Dr. Foster was Director of the Lawrence Livermore National Laboratory. In 1988, he retired from TRW, Inc. as Vice President of Science and Technology, and continues as a consultant. Dr. Foster serves as a member of the Board of JAYMARK and Arete Associates, and his numerous awards include the Founders Award, the James Forrestal and Enrico Fermi Awards, and the Department of Defense Distinguished Public Service Medal. Dr. Foster received his B.S. from McGill University in Montreal and his PhD in physics from the University of California, Berkeley.

**The Honorable Dr. Shirley Ann Jackson**, a theoretical physicist, became the 18th president of Rensselaer Polytechnic Institute on July 1, 1999. Dr. Jackson's career has encompassed senior positions in government, industry, and academe. In 1995, President Clinton appointed Dr. Jackson Chairman of the U.S. Nuclear Regulatory Commission, which she served from 1995-1999. From

1991 to 1995, Dr. Jackson was professor of physics at Rutgers University. She concurrently served as a consultant in semiconductor theory to AT&T Bell Laboratories. Dr. Jackson has served on a U.S. Department of Energy Task Force on the future of its multipurpose National Laboratories, and on a number of committees of the National Research Council of the National Academy of Sciences. She is the first African-American woman to receive a doctorate from M.I.T. -- in any subject -- and is one of the first two African-American women to receive a doctorate in physics in the U.S. She is a member of a number of professional organizations, including the American Academy of Arts and Sciences and the American Physical Society, and holds 13 honorary doctoral degrees. Dr. Jackson holds a Ph.D. in theoretical physics from M.I.T. and an S.B. in physics from M.I.T.

**Dr. Raymond Jeanloz** is a member of the U.C. Berkeley faculty, where he serves as both a professor in the Departments of Earth and Planetary Science and of Astronomy, and Executive Director of U.C. Berkeley's Miller Institute for Basic Research in Science. His research focuses on the properties of materials at high pressures, and on the nature and evolution of planetary interiors. In addition to research and teaching, Dr. Jeanloz lends his expertise to a variety of organizations, including the National Academies' National Research Council Board on Earth Sciences and Resources (Chairman), the Department of Energy's Geosciences Advisory Council, and NASA's Solid-Earth and Natural Hazards Steering Committee. Dr. Jeanloz is also a member of the University of California's National Security Panel, which provides University oversight for the national and global security programs at the Lawrence Livermore and Los Alamos National Laboratories. Dr. Jeanloz has also served as a senior advisor on issues related to the U. S. nuclear-weapons stockpile and the Comprehensive Test Ban Treaty. He has co-authored over 250 publications and received many awards, including a MacArthur Prize Fellowship and Fellowship in the American Academy of Arts and Sciences. He received his Ph.D. from the California Institute of Technology.

**Dr. Kerri-Ann Jones** has significant experience in science and technology policy and programming. She is currently the Director for the Experimental Program to Stimulate Competitive Research (EPSCoR) for the state of Maine. Dr. Jones spent fifteen years working with the federal government in positions in Washington, DC and overseas. She has held senior policy positions in the White House Office of Science and Technology Policy (OSTP), the U.S. Agency for International Development (USAID), the National Institutes of Health (NIH) and the National Science Foundation (NSF). Prior to U.S. Government service, Dr. Jones worked as an independent consultant in international development and science and technology. She served for a year in New Delhi, India as the Biotechnology Advisor to the USAID mission and in 1985, was the recipient of an American Association for the Advancement of Science (AAS), Science, Engineering and Diplomacy Fellowship. Her principal areas of expertise are biotechnology, health, bioterrorism, international cooperation, and technology commercialization. Dr. Jones obtained her Ph.D. from the Department of Molecular Biophysics and Biochemistry at Yale University and holds a bachelor's degree in chemistry from Barnard College, Columbia University.

**Dr. Paul Messina** is Assistant Vice President for Scientific Computing at the California Institute of Technology (Caltech), where he also holds the positions of Faculty Associate in Scientific Computing and Director of Caltech's Center for Advanced Computing Research. During a leave from Caltech January 1999-December 2000, he was Director of the Office of Advanced Simulation and Computing for Defense Programs in the National Nuclear Security Administration. At NNSA,

Dr. Messina managed the Accelerated Strategic Computing Initiative, the world's largest scientific computing program. He holds the position of Chief Architect for the National Partnership for Advanced Computational Infrastructure. His recent interests focus on advanced computer architectures, especially their application to large-scale computations in science and engineering. He has also been active in high-speed networks, computer performance evaluation, and Petaflops computing issues. Dr. Messina received his PhD in mathematics and his MS in applied mathematics, both from the University of Cincinnati, and his BA in mathematics from the College of Wooster.

**Dr. James R. Schlesinger** (*appointment pending*) currently divides his time between the Center for Strategic and International Studies (CSIS), where he serves as counselor, and the investment banking firm of Lehman Brothers, where he serves as senior advisor. His distinguished career in government includes service as the first Secretary of Energy (1977-1979), Secretary of Defense (1973-1975), Director of Central Intelligence (1973), and Chairman of the Atomic Energy Commission. Dr. Schlesinger served on a variety of blue ribbon task forces and commissions, including President's Blue Ribbon Task Group on Nuclear Weapons Program Management. He has been awarded nine honorary doctorates and received his B.A. (summa cum laude), M.S. and doctorate degrees from Harvard.

**Dr. Jeremiah Sullivan** has pursued a scientific career that has successfully integrated the three distinct areas of research, teaching in its broadest sense, and government service. He spent his postdoctoral years as a research associate in the theoretical physics group at the Stanford Linear Accelerator Center (SLAC), then moved to the University of Illinois at Urbana-Champaign, where he has served as full professor since 1973. Over the past twenty years, Dr. Sullivan has made wide-ranging, lasting contributions to arms control and international security, including important detailed calculations of shock wave profiles from underground tests, comprehensive nuclear test ban issues, science-based stockpile stewardship, technology and policy of ballistic missile defenses, and science and public policy. Dr. Sullivan has lent his expertise to a number of important studies and reviews that have played key roles in the evolution of U.S. defense policy; most recently, he served as the chairman of the DOE Advisory Committee on Nonproliferation and National Security. Dr. Sullivan received his B.S. in physics from Carnegie Institute of Technology and his Ph.D. in physics from Princeton University.

**General Larry D. Welch**, (USAF, Retired) is currently the President and Chief Executive Officer of The Institute for Defense Analyses (IDA) in Washington D.C. -- a federally chartered research center providing operations and technical analysis, and management and information systems design and development for the Department of Defense and other U.S. government agencies. Before assuming his current position, he served for 39 years in U.S. military forces from private in the U.S. Army National Guard to Chief of Staff, U.S. Air Force. In addition to his IDA duties, he serves on a number of boards, panels and commissions that serve the national security establishment.

**Christopher A. Williams** is currently a partner at Johnston & Associates. Previously, he served as the Acting Under Secretary of Defense for Policy, U.S. Department of Defense and on the Department of Defense Transition Team of President-elect George W. Bush. During the transition period, he also served as Special Assistant to the Secretary of Defense. Williams's extensive

legislative branch experience includes service as Advisor to Senate Majority Leader Trent Lott on national security, defense, foreign policy, and intelligence issues (1999-2001), Deputy Staff Director and Budget Director, Senate Select Committee on Intelligence (1997-1999), and Professional Staff Member, House Armed Services Committee (1991-1997). Mr. Williams received his BA in Political Science from the University of California at Los Angeles, and his MA in Government (certificate in National Security Studies) from Georgetown University.

**Dr. Ellen Williams** began her career at the University of Maryland as a post-doctoral fellow in Physics. She has risen through the ranks to become is a Distinguished University Professor of Physics, and her research is in surface physics. Professor Williams founded the University's National Science Foundation-supported Materials Research Science and Engineering Center, and has served as its director since 1996. She has been a member of the JASON group since 1991, and has worked on many studies involving Stockpile Stewardship. She is also a member of the National Security Panel of the University of California President's Council on the National Laboratories and a fellow of the American Physical and American Vacuum Societies. Professor Williams' work as garnered numerous distinctions, including the David Adler Lectureship Award of the American Physical Society (2001). She received her undergraduate degree from Michigan State University, and her PhD in Chemistry from Caltech in 1981.